WHAT IS CLAIMED IS:

1.   A computer-implemented method for providing prediction results to an application system during an interactive session with a user, the method comprising:

receiving a first set of input values from the application system;

using a data mining model along with the first set of input values to compute a first

5   prediction result;

saving state information generated from the computation of the first prediction result;

receiving a second set of input values from the application system; and

using the data mining model along with the state information and the second set of

input values to compute a second prediction result.

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2.   The computer-implemented method of claim 1, wherein the method comprises:

sending the first prediction result back to the application system; and

sending the second prediction result back to the application system.

15   3.   The computer-implemented method of claim 1, wherein the second set of input values includes both the first set of input values and an additional set of input values, and wherein the method comprises using the data mining model along with the state information and the additional set of input values to compute the second prediction result.

20   4.   The computer-implemented method of claim 1, wherein the method comprises receiving the first set of input values from the application system before the second set of input values are available.

5.   The computer-implemented method of claim 1, wherein the first set of input values

25   includes at least two input values.

6.   The computer-implemented method of claim 1, wherein the second set of input values includes at least two input values.

30   7.   The computer-implemented method of claim 1, wherein the method comprises:

receiving the first set of input values from the application system during an interactive session with a customer; and

receiving the second set of input values from the application system during the interactive session with the customer.

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8. The computer-implemented method of claim 1, wherein the data mining model is a decision tree model.

9. The computer-implemented method of claim 8, wherein the state information includes

10 information about a particular node in the decision tree model.

10. The computer-implemented method of claim 1, wherein the data mining model is a Naive Bayes model.

15 11. The computer-implemented method of claim 10, wherein the state information includes intermediate probability information.

12. The computer-implemented method of claim 1, wherein the first and second prediction results each specify a probability of customer churn.

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13. A computer system for providing prediction results to an application system during an interactive session with a user, wherein the computer system is programmed to:

receive a first set of input values from the application system;

use a data mining model along with the first set of input values to compute a first

25 prediction result;

save state information generated from the computation of the first prediction result;

receive a second set of input values from the application system; and

use the data mining model along with the state information and the second set of input values to compute a second prediction result.

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14. A computer system, comprising:

a data mining model; and

a prediction engine that is operable to:

receive a first input value from an application system;

use the data mining model along with the first input value to compute a first

5 prediction result;

save state information generated from the computation of the first prediction

result;

receive a second input value from the application system; and

use the data mining model, the state information, the first input value, and the

10 second input value to compute a second prediction result.

15. The computer system of claim 14, wherein the prediction engine is operable to:

send the first prediction result back to the application system; and

send the second prediction result back to the application system.

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16. The computer system of claim 14, wherein the prediction engine is operable to

receive the first input value from the application system before the second input value is

available.

20 17. The computer system of claim 14, wherein the data mining model is a decision tree

model.

18. The computer system of claim 17, wherein the state information includes information

about a particular node in the decision tree model.

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19. The computer system of claim 14, wherein the data mining model is a Naive Bayes

model.

20. The computer system of claim 19, wherein the state information includes intermediate

30 probability information.

21. A computer-readable medium having computer-executable instructions contained therein for performing a method, the method comprising:

receiving a first set of input values from the application system;

using a data mining model along with the first set of input values to compute a first prediction result;

saving state information generated from the computation of the first prediction result;

receiving a second set of input values from the application system; and

using the data mining model along with the state information and the second set of input values to compute a second prediction result.